What is claimed is:

1. A battery protection circuit, comprising:
    a. at least one rechargeable cell;
    b. a safety circuit coupled to the at least one rechargeable cell, the safety circuit comprising a means for monitoring a voltage across the at least one rechargeable cell, further comprising a means for monitoring a current flowing through the at least one rechargeable cell;
    c. at least one disconnect means coupled serially with the at least one rechargeable cell;
    d. a means of monitoring power being delivered either to or from the at least one rechargeable cell; and
    e. a means for simulating an overcurrent condition within the safety circuit when the means for monitoring power determines that the power being delivered either to or from the at least one rechargeable cell exceeds a predetermined threshold.
2. The circuit of claim 1, wherein the means of monitoring power monitors the power being delivered from the at least one rechargeable cell.
3. The circuit of claim 2, further comprising at least a second disconnect means, the at least a second disconnect means being responsive to the means for monitoring power being delivered from the at least one rechargeable cell.
4. The circuit of claim 3, further comprising a leakage current path in parallel with the at least a second disconnect means, the leakage current path having a resistance in excess of one hundred thousand Ohms.

5. The circuit of claim 1, further comprising at least an additional disconnect means coupled between the at least one rechargeable cell and the means of monitoring power delivered to or from the at least one rechargeable cell, wherein when the overcurrent condition is simulated, the safety circuit actuates the at least an additional disconnect means to deactivate the means for monitoring power delivered to or from the at least one rechargeable cell.

6. The circuit of claim 1, wherein the at least one disconnect means are selected from the group consisting of transistors, switches, relays, circuit breakers, and fuses and positive temperature coefficient devices.

7. The circuit of claim 1, wherein the means for monitoring power being delivered comprises:

   a. a means for measuring the voltage across the at least on rechargeable cell;

   b. a means for measuring the current flowing through the at least on rechargeable cell;

   c. a means of determining whether the product of the voltage across the at least one rechargeable cell and the current flowing through the at least one rechargeable cell exceeds the predetermined threshold; and

   d. a comparator, wherein an output of the comparator is in a first state when a product of the voltage across the at least one rechargeable cell and the current flowing through the at least one rechargeable cell is below the predetermined threshold; further wherein the output of the comparator is in a second state when a product of the voltage across the at least one

rechargeable cell and the current flowing through the at least one rechargeable cell is above the predetermined threshold.

8. The circuit of claim 1, wherein the predetermined threshold is nine watts.

9. The circuit of claim 1, wherein the safety circuit comprises:

   a. an overcharge detector;

   b. an undercharge detector; and

   c. an overcurrent detection circuit.

10. The circuit of claim 9, wherein the overcurrent situation is simulated by sourcing current into the overcurrent detection circuit.

11. A rechargeable battery pack comprising the circuit of claim 1.

12. A battery protection circuit having a power monitoring circuit, wherein the power monitoring circuit determines when power exceeds a predetermined threshold, comprising:

   a. at least one rechargeable cell;

   b. at least one safety circuit coupled to the at least one rechargeable cell;

   c. at least one disconnect means coupled serially with the at least one rechargeable cell; and

   d. at least one means for simulating an overcurrent condition within the safety circuit when the power monitoring circuit determines that power exceeds the predetermined threshold.

13. The circuit of claim 12, wherein when the at least one means for simulating an overcurrent condition within the safety circuit simulates an overcurrent condition, the at least one disconnect means enters a high impedance state.

14. The circuit of claim 13, wherein the at least one disconnect means are selected from the group consisting of transistors, switches, relays, circuit breakers, and fuses and positive temperature coefficient devices.

15. The circuit of claim 14, wherein power monitoring circuit comprises:

a. a means for sensing the voltage across the at least on rechargeable cell;

b. a means for sensing the current flowing through the at least on rechargeable cell;

c. a means of determining whether the product of the voltage across the at least one rechargeable cell and the current flowing through the at least one rechargeable cell exceeds the predetermined threshold; and

d. a comparator, wherein an output of the comparator is in a first state when a product of the voltage across the at least one rechargeable cell and the current flowing through the at least one rechargeable cell is below the predetermined threshold; further wherein the output of the comparator is in a second state when a product of the voltage across the at least one rechargeable cell and the current flowing through the at least one rechargeable cell is above the predetermined threshold.

16. The circuit of claim 15, wherein the predetermined threshold is nine watts.

17. The circuit of claim 16, wherein the safety circuit comprises:

a. an overcharge detector;

b. an undercharge detector; and

c. an overcurrent detection circuit.

18. The circuit of claim 17, wherein the overcurrent situation is simulated by sourcing current into the overcurrent detection circuit.